


Product datasheet

Anti-CtIP antibody ab117722

[1 References](#) [4 Images](#)

Overview

Product name	Anti-CtIP antibody
Description	Rabbit polyclonal to CtIP
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat 
Immunogen	Synthetic peptide corresponding to Human CtIP (internal sequence) conjugated to keyhole limpet haemocyanin. Database link: Q99708
Positive control	Human Breast, Colon Myenteric Plexus and Pancreas tissues.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Storage buffer	pH: 7.4 Preservative: 0.02% Sodium azide Constituent: PBS
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab117722 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		Use a concentration of 1 - 2 µg/ml. Predicted molecular weight: 101 kDa.
IHC-P		Use a concentration of 5 µg/ml. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

Target

Function

Endonuclease that cooperates with the MRE11-RAD50-NBN (MRN) complex in processing meiotic and mitotic double-strand breaks (DSBs) by ensuring both resection and intrachromosomal association of the broken ends. Functions downstream of the MRN complex and ATM, promotes ATR activation and its recruitment to DSBs in the S/G2 phase facilitating the generation of ssDNA. Component of the BRCA1-RBBP8 complex that regulates CHEK1 activation and controls cell cycle G2/M checkpoints on DNA damage. Promotes microhomology-mediated alternative end joining (A-NHEJ) during class-switch recombination and plays an essential role in chromosomal translocations.

Involvement in disease

Seckel syndrome 2
Jawad syndrome
Genetic variability in RBBP8 is noted as a factor in BRCA1-associated breast cancer risk (PubMed:21799032). Exhibits sensitivity to tamoxifen in certain breast cancer cell lines (PubMed:18171986).

Sequence similarities

Belongs to the COM1/SAE2/CtIP family.

Domain

The PXDLS motif binds to a cleft in CtBP proteins.
The damage-recruitment motif is required for DNA binding and translocation to sites of DNA damage.

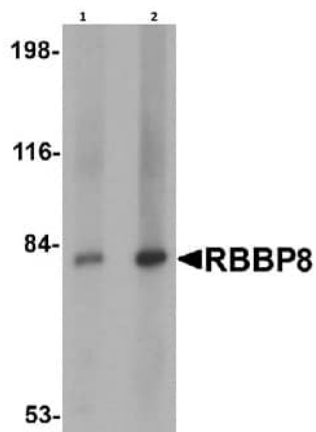
Post-translational modifications

Acetylated. Deacetylation by SIRT6 upon DNA damage promotes DNA end resection.
Hyperphosphorylation upon ionizing radiation results in dissociation from BRCA1.
Phosphorylation at Thr-847 by CDK1 is essential for the recruitment to DNA and the DNA repair function. Phosphorylated on Ser-327 as cells enter G2 phase. This phosphorylation is required for binding BRCA1 and for the G2/M DNA damage transition checkpoint control.
Ubiquitinated (PubMed:14654780, PubMed:16818604). Ubiquitination at multiple sites by BRCA1 (via its N-terminal RING domain) does not lead to its proteosomal degradation but instead the ubiquitinated RBBP8 binds to chromatin following DNA damage and may play a role in G2/M checkpoint control (PubMed:16818604). Ubiquitinated by RNF138 at its N-terminus (PubMed:26502057).

Cellular localization

Nucleus. Chromosome. Associates with sites of DNA damage in S/G2 phase (PubMed:10764811). Ubiquitinated RBBP8 binds to chromatin following DNA damage (PubMed:16818604).

Images



Western blot - Anti-CtIP antibody (ab117722)

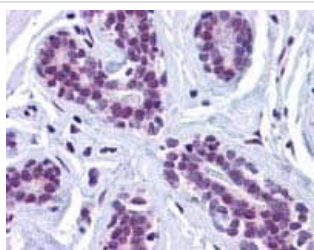
Lane 1 : Anti-CtIP antibody (ab117722) at 1 µg/ml

Lane 2 : Anti-CtIP antibody (ab117722) at 2 µg/ml

Lane 1 : Mouse spleen tissue lystae

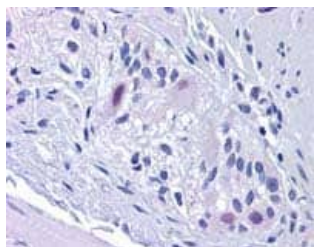
Lane 2 : Mouse spleen tissue lysate

Predicted band size: 101 kDa



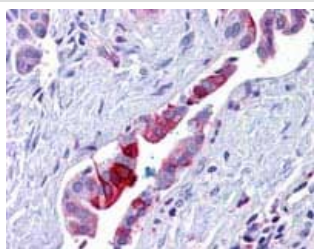
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CtIP antibody (ab117722)

Immunohistochemistry Image of Human Breast: Formalin-Fixed, Paraffin-Embedded (FFPE) stained with anti-CTIP antibody (ab117722).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CtIP antibody (ab117722)

Immunohistochemistry Image of Human Colon, Myenteric Plexus: Formalin-Fixed, Paraffin-Embedded (FFPE) stained with anti-CTIP antibody (ab117722).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-CtIP antibody (ab117722)

Immunohistochemistry Image of Human Pancreas, Duct: Formalin-Fixed, Paraffin-Embedded (FFPE) stained with anti-CTIP antibody (ab117722).

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